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PTO/SB/21 (09-04)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

	Application Number	10/627,016
	Filing Date	July 25, 2003
	First Named Inventor	JOSEPH C. ZUERCHER
	Art Unit	2858
	Examiner Name	Walter Benson
Total Number of Pages in This Submission	22	Attorney Docket Number
		02-mAE2-229

ENCLOSURES (Check all that apply)

<input checked="" type="checkbox"/> Fee Transmittal Form (2x) <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment/Reply (19 pp.) <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD <div style="border: 1px solid black; padding: 2px;">Remarks</div>	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): <div style="text-align: center;">Return Postcard</div>
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Eckert Seamans Cherin & Mellott, LLC		
Signature			
Printed name	Kirk D. Houser		
Date	June 30, 2005	Reg. No.	37,357

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:			
Signature			
Typed or printed name	Kirk D. Houser	Date	June 30, 2005

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PTO/SB/17 (12-04)
Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 0.00

Complete if Known

Application Number	10/627,016
Filing Date	July 25, 2003
First Named Inventor	JOSEPH C. ZUERCHER
Examiner Name	Walter Benson
Art Unit	2858
Attorney Docket No.	02-mAE2-229

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☒ Deposit Account Deposit Account Number: 05-0275 Deposit Account Name: Eaton Corporation

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee
☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☐ Credit any overpayments

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FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent	50	25
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100
Multiple dependent claims	360	180

Total Claims ⁽⁴⁶⁾ 31 - 20 or HP = 0 x = Fee Paid (\$)
HP = highest number of total claims paid for, if greater than 20

Indep. Claims ⁽⁶⁾ 6 - 3 or HP = 0 x = Fee Paid (\$)
HP = highest number of independent claims paid for, if greater than 3

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets Extra Sheets Number of each additional 50 or fraction thereof Fee (\$)
 - 100 = / 50 = (round up to a whole number) x = Fee Paid (\$)

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other: _____

SUBMITTED BY

Signature <u>Kirk D. Houser</u>	Registration No. (Attorney/Agent) <u>37,357</u>	Telephone <u>412.566.6083</u>
Name (Print/Type) <u>Kirk D. Houser</u>	Date <u>June 30, 2005</u>	

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450, on 6/30/05



Attorney for Applicants

Date JUNE 30, 2005



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

JOSEPH C. ZUERCHER et al.

Entitled:

APPARATUS AND METHOD FOR REAL TIME)
DETERMINATION OF ARC FAULT ENERGY,)
LOCATION AND TYPE)

Serial No. 10/627,016

Filed: July 25, 2003

)
)
) Attorney Docket No. 02-mAE2-229
)
)
) Group Art Unit 2858
)
)
) Examiner Walter Benson
)
) Confirmation No. 3696

AMENDMENT

600 Grant Street, 44th Floor
Pittsburgh, PA 15219
June 30, 2005

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Office Action mailed on April 27, 2005, please amend the above-captioned Application as follows:

Amendments to the Claims are reflected in the **Listing of Claims** which begins on page 2 of this paper.

Remarks begin on page 7 of this paper.